

REMARKS

An office action for the above-identified application was mailed on September 1, 2006. A response was therefore due on March 1, 2007. As the September 1, 2006 Office Action was not mailed to, nor delivered to, nor known to the attorney of record, this Amendment and Response is submitted together with a Petition to Withdraw Holding of Abandonment.

Claims 1 -20 were pending in the application.

Claim 1 was objected to because line 21 contained the word “theretogether.” In claim 4, the word “generator” was misspelled. Claims 2 and 3 were considered to be duplicates of each other. Claim 17 and 18 contained multiple steps that were not separated by line indentation. Many claims contained limitations that were considered as being passive or optional.

Claims 1-20 were also rejected under 35 U.S.C. §112 ¶2.

The Examiner considered the claims as lacking essential elements that were required by claim preambles. More particularly, the claim 1 preamble recited “altering the data of at least one of the network copy and the mobile-copy of the ...[first] database...” however, there was no structure recited in the claim that performed the “altering” step that was recited in the preamble of claim 1. Various terms and references to the first database were also used inconsistently through-out claims 1-20.

Claim 4 was rejected because the term “first-type hashes” and “second-type hashes” lacked antecedent basis. Claim 10 was rejected because the term “the second hash-type” lacked antecedent basis. Claim 15 twice recited the step of “comparing, at the network part, the first hash information....” Claims 15-17 were also rejected under 35 U.S.C. §112 ¶2 because their preambles recited the aforementioned “altering” step yet lacked a step that caused the altering that was recited in the preamble.

In addition to the rejections made under 35 U.S.C. §112, claims 1-20 were rejected under 35 U.S.C. §101 because they did not claim a “useful, concrete and tangible result.”

Claims 1-20 were also rejected under 35 U.S.C. §102(e) as being anticipated by U.S. pre-grant publication 2002/0029214 by Yianilos et al.

Claims 1-20 have been extensively amended in response to the office action. The objections are believed overcome and the rejections are believed to be traversed.

The amendments correct various typographical errors, improve claim format (layout), delete passive and optional limitations and therefore overcome the Examiner's various objections. The amendments also include revisions to the claim preambles and claim limitations such that steps that were considered by the Examiner to have been essential but omitted are now recited affirmatively. Among other things, various references to the "first database" that were inconsistent have been made uniform and consistent.

Hash values or "hashes" recited in the claims have been re-named to be consistent through out the claims.

The duplicated limitation in claim 15 has been deleted.

As for the rejection under 35 U.S.C. §101, claims 1 and 15 have been amended to recite a useful, concrete and tangible result. Taking claim 1 as demonstrative of changes made to claim 15, claim 1 has been amended such that it is directed to "an apparatus for altering data" in a database located at either a network or a mobile node. The apparatus includes a hash generator and a content retriever. The hash generator is capable of generation two different types of hash values. The content retriever retrieves data from the mobile copy of the first database when it receives a signal from the network, which instructs the content retriever to retrieve database contents. The signal is sent by the network if the two hash codes generated by the mobile node hash generator were used by the network part to determine that the two database copies are out of match. The content retriever thus retrieves data from the mobile copy of the database when it and the network copy don't match each other. If the two database copies match each other, the content retriever does not retrieve anything.

At least one useful, concrete and tangible result realized by the amended claims is avoiding database content transfers if the two databases are determined to match each other. Claims 1 and 15 therefore recite useful, concrete and tangible results. The rejections of claim 1-20 under 35 U.S.C. §101 are therefore traversed.

As for the rejection of claims 1-20 under 35 U.S.C. §102(e), claims 1-20 have been amended to avoid *Yianilos*. The amended claims are believed to be in condition for allowance.

The dependent claims have been amended to conform their terms to those used in the independent claims. The dependent claims have also been amended to clarify their scope.

Paraphrased, claim 1 is directed to an apparatus for synchronizing a network copy and a mobile node copy of the same database. The claimed apparatus includes a hash generator in the mobile node and a content retriever in the mobile node. The hash generator receives data is capable of forming two different types of hash values from the data it receives.

The content retriever retrieves data from the mobile-copy database when it receives a signal from the network part indicating that the network part determined that the network copy and the mobile-copy are out of match. Data retrieved by the content retriever is then communicated to the network part and used by the network part to synchronize the two databases.

Claim 15 is a method claim directed to synchronizing the network copy of a database to a mobile copy of the database. Paraphrased, claim 15 requires that a first hash value be calculated over a first portion of a first database of the mobile node. The first hash value is compared at the network to a “second hash value” that is calculated from a corresponding first portion of the network using the same “first technique.” A “third hash value,” which is calculated at the mobile node using a *second* technique is compared to a “fourth hash value” calculated at the network using the same second technique. The network copy and mobile node copy are determined to be out of synchronization if the first and second hash values are different from each other or when the third and fourth hash values are different from each other.

Support for the claim amendments can be found in paragraphs 0018 – 0023. No new matter has been added.

Paragraphs 0018-0020 describe how the databases are determined to be matched or out of match by comparing hash values that are separately calculated at the mobile node and the network. If the databases are determined to out of match using hash codes, portions of the databases are communicated over the air interface. Importantly, paragraph 0022 describes how the hash generator creates hash values using two different hash techniques. Paragraph 0023 describes the content retriever operation that is recited in the claims.

Yianilos admittedly teaches an apparatus for altering data in one of a database using a hash generator and hash values, however, *Yianilos* does not show or suggest using two different hash techniques as claims 1 and 15 now require.

In the Examiner's rejection of claim 4, which appears on page 7 of the office action, the Examiner cited paragraphs 0062 and 0067 of *Yianilos* as ostensibly teaching first and second types of hashes. Paragraph 0062 of *Yianilos* says nothing about hash techniques. Paragraph 0067 of *Yianilos* describes how a database can be divided into sub-ranges and a "summary" of the records created with a summary created for each of the different sub-ranges.

The "summary" mentioned in paragraph 0067 is not necessarily a hash value, however, even if the "summary" mentioned in paragraph 0067 is a hash value, creating *different* summaries of *different* records is not the same as creating different hash values from the same records by using different hashing techniques, which amended claims 1 and 15 now require. Since *Yianilos* does not show or suggest creating different hash values from the same data records as claims 1 and 15 now required, *Yianilos* does not anticipate claims 1 and 15 nor does it render them obvious.

The applicant contends that the amendments to claims 1-20 overcome the objections and traverse the rejections. The claims are therefore in condition for allowance.

Respectfully submitted,

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